

PUB-NO: WO002080770A1
DOCUMENT-IDENTIFIER: WO 2080770 A1
TITLE: METHOD FOR MEASURING OF EDEMA
PUBN-DATE: October 17, 2002

INVENTOR-INFORMATION:

NAME	COUNTRY
ALANEN, ESKO	FI
LAHTINEN, AULIS TAPANI	FI
NUUTINEN, JOUNI	FI

ASSIGNEE-INFORMATION:

NAME	COUNTRY
DELFIN TECHNOLOGIES LTD	FI
ALANEN ESKO	FI
LAHTINEN AULIS TARANI	FI
NUUTINEN JOUNI	FI

APPL-NO: FI00200234

APPL-DATE: March 21, 2002

PRIORITY-DATA: FI20010601A (March 23, 2001)

INT-CL (IPC): A61B005/053

BUR-CL (EPC): A61B005/05

ABSTRACT:

CHG DATE=20021203 STATUS=N>The invention relates to a method for measuring tissue edema. By a method in accordance with the invention an electromagnetic probe (24) is placed on the skin, and the capacitance of the probe is proportional to the dielectric constant of the skin and subcutaneous fat, which

	Document ID	Kind Codes	Source	Issue Date	Pages	
1	JP 62156582 A		JPO	19870711	4	DETRC
2	JP 61086662 A		JPO	19860502	4	APPAR
3	WO 2080770 A1		EPO	20021017	16	HEATING
4	WO 2056418 A1		EPO	20020718		ELECT
5	US 20020109497 A		DERWENT	20020815		Elect
6	JP 08233877 A		DERWENT	19960913		Elect
7	EP 492392 A		DERWENT	19920701		Eddy

WFO 02/08/720

PCT/JP01/00234

2/3

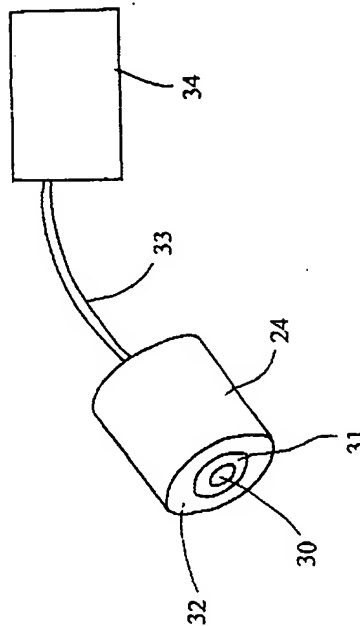


FIG. 2

PUB-NO: WO02056418A1
DOCUMENT-IDENTIFIER: WO 2056418 A1
TITLE: ELECTROMAGNETIC PROBE
PUBN-DATE: July 18, 2002

INVENTOR-INFORMATION:
NAME: BRACHAT, PATRICE
DEVILLERS, FREDERIC
RATAJCIAK, PHILIPPE
BILLS, RAYMOND
COUNTRY: N/A
N/A
N/A
N/A

ASSIGNEE-INFORMATION:
NAME: FRANCE TELECOM
COUNTRY: FR

APPL-NO: FR00200072
APPL-DATE: January 10, 2002

PRIORITY-DATA: FR00100390A (January 12, 2001)

INT-CL (IPC): H01Q013/04, H01Q021/20

ABSTRACT:

The invention concerns an electromagnetic probe characterised in that it comprises at least an assembly including in combination: a coaxial feeder link (401), a ground plane (250) connected to the outer sheath (404) of the coaxial drive connection; a reflecting cone (100) arranged opposite the ground plane (250), and configured to define an impedance at least substantially constant along its profile; and a dielectric medium (400) interposed at least partly between the reflecting cone (100) and the ground plane (250).

Details [Icons] [HTML] [FULL]

	Document ID	Kind Codes	Source	Issue Date	Pages	
1	JP 62156582 A		JPO	19870711	4	DETEC
2	JP 61086662 A		JPO	19860502	4	APPAR
3	WO 2080770 A1		SPO	20021017	16	METHO
4	WO 2056418 A1		EPO	20020718	31	ELECT
5	US 20020109497 A		DERWENT	20020815		Elect
6	JP 08233877 A		DERWENT	19960913		Elect
7	EP 492392 A		DERWENT	19920701		Eddy
8	EP 51018 A		DERWENT	19920505		Elect

Details [Icons] [HTML] [Full]

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(19) Organisation Mondiale de la Propriété Intellectuelle
Bureau International



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(43) Date de la publication internationale
18 juillet 2002 (18.07.2002)

PCT

(10) Numéro de publication internationale
WO 02/056418 A1

(51) Classification internationale des brevets:
H01Q 13/04, 21/20

(71) Déposant: FRANCE TELECOM (FR/FR); 6, place d'Alger, F-75015 Paris (FR).

(72) Inventeurs: BRACHAT, Patrice; Les Jardins du Cimetière, Les Jumeaux, 26, avenue du Fleury, F-40000 Béziers (FR); DEVILLERS, Frédéric; 51 Boulevard Louis Bachelier, F-06500 Nice (FR); RATAJCIAK, Philippe; Espace Bergriffes, 66 Avenue Bergriffes, F-06100 (FR); BILLS, Raymond; Le Cap Vert/A, 15 Avenue Vilecan, F-016190 Mequignon-Cap-Martin (FR).

(73) Représentation: MARTIN, Jean-Jacques etc.; Cabinet Rabinovich, 20, rue de Chaulieu, F-75847 Paris Cedex 17 (FR).

(21) Numéro de la demande internationale: PCT/FR02/00072

(22) Date de dépôt internationale: 10 janvier 2002 (10.01.2002)

(23) Langue de dépôt: française

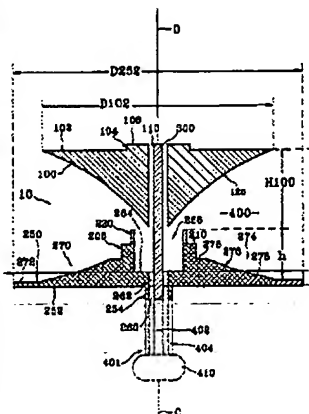
(24) Langue de publication: française

(25) Demandes relatives à la priorité: 12 janvier 2001 (12.01.2001) FR 0100390

[Voir sur la page suivante]

(54) Titre: ELECTROMAGNETIC PROBE

(54) Titre: SONDE ELECTROMAGNETIQUE



(57) Abstract: The invention concerns an electromagnetic probe characterized in that it comprises at least an assembly including in combination: a coaxial feeder link (401), a ground plane (250) connected to the outer sheath (404) of the coaxial drive connection; a reflecting cone (100) arranged opposite the ground plane (250), and configured to define an impedance at least substantially constant along its profile; and a dielectric medium (400) interposed at least partly between the reflecting cone (100) and the ground plane (250).

(57) Abrégé: La présente invention concerne une sonde électromagnétique caractérisée par le fait qu'elle comporte au moins un ensemble comprenant: un connecteur coaxial (401) de type coaxial, - en plan de vue (250) relié à la gaine extérieure (404) de la liaison d'attaque coaxiale, - un cône réflecteur (100) placé en regard du plan de vue (250), et configuré pour définir une impédance au moins substantiellement constante le long de son profil, et - un milieu diélectrique (400) interposé au moins en partie entre le cône réflecteur (100) et le plan de vue (250).

WO 02/056418 A1

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FIG. 4, is a diagram of the phase law across the aperture of the antenna of FIG. 1.

FIG. 5, is a view of the radiation diagrams of an antenna according to the invention and of a conventional discone antenna, and

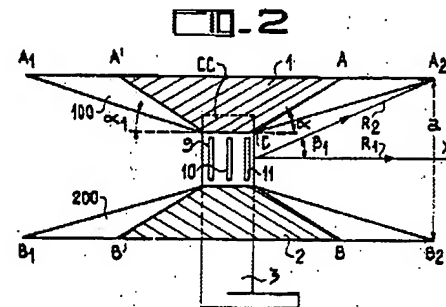
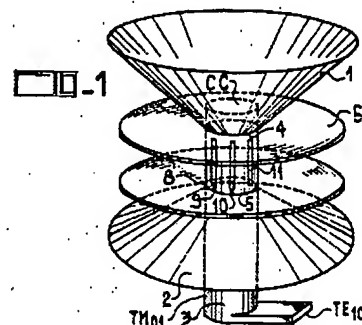
FIG. 6, is a graph showing the width of the diagram in elevation as a function of the ratio between the length of the discs and the wavelength.

DETAILED DESCRIPTION:

(1) DESCRIPTION OF THE INVENTION

(2) FIG. 1 shows an omnidirectional antenna according to the invention. It comprises two truncated metal cones 1 and 2 which are attached to a waveguide 3 of circular cross-section which forms the feed guide and which is closed off at one end by a short-circuit CC. The intersections between the truncated cones 1 and 2 and the waveguide 3 are at two cross-sectional planes 4 and 5 which have spaced between them a considerable length of the guide 3. Two discs 6 and 7 of dielectric material are attached to the truncated cones 1 and 2 at the points where these cross-sectional planes 4 and 5 are situated so that the bases of the truncated cones and the surfaces of the discs of dielectric material are parallel and lie perpendicular to the feed waveguide 3. The part 8 of the feed waveguide contains an array of equidistant slots of which only three, 9, 10, and 11, can be seen in the Figure.

(3) In the view shown in FIG. 1, these slots are parallel to the axis of the guide 3. Their orientation may however be different and the slots may be vertical, horizontal or oblique, depending on whether the polarisation of the wave which is used is horizontal, vertical or circular. The mode of excitation would also change, being TM₀₁ in the case of the Figure and TE₀₁ in the case



Document ID	Kind Codes	Source	Issue Date	Pages	
16 US 4692770 A		USPAT	19870908	7	Vehic
			0924	7	Collis
			0930	9	Multi
			0819	4	Secur
			1009	7	Mobil
			USUC	7	Connid
			0813	6	POLAR

for
10/044443

AST Browser - 144 (11361802) (US 3987456) (Page 5 of 6) (Total images 10)

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US-PAT-NO: 3987456

DOCUMENT-IDENTIFIER: US 3987456 A

TITLE: Wide relative frequency band and reduced size-to-wavelength ratio antenna

----- KWIC -----

US Reference Patent Number - URPN (3): 3613167

Details Tool Image HTML KWIC

	Document ID	Kind Codes	Source	Issue Date	Pages	
3	US 5608416 A		USPAT	19970304	12	Porta
4	US 4851859 A		USPAT	19890725	9	Tunab
5	US 4691209 A		USPAT	19870901	12	Wideb
6	US D289163 S		USPAT	19870407	3	Anten
7	US 4608572 A		USPAT	19860826	18	Broad
8	US 4352109 A		USPAT	19820928	9	End s
9	US 3987456 A		USPAT	19761019	10	Wide
10	US 3918710 A		USPAT	19751111	15	Wide

Details Tool Image HTML Full

U.S. Patent Oct. 19, 1976 Sheet 6 of 6 3,987,456

FIG. 6

FIG. 7

US-PAT-NO: 3919710
DOCUMENT-IDENTIFIER: US 3919710 A
TITLE: Turnstile and flared cone UHF antenna

----- KWIC -----

US Reference Patent Number - URPN (1):
5619107

	Document ID	Kind Codes	Source	Issue Date	Pages	
4	US 4851859 A		USPAT	19890725	9	Tunab
5	US 4691209 A		USPAT	19870901	12	Wideb
6	US D289163 S		USPAT	19870407	3	Anten
7	US 4608572 A		USPAT	19860826	18	Broad
8	US 4352109 A		USPAT	19820928	9	End s
9	US 3987456 A		USPAT	19761019	10	Wide
10	US 3919710 A		USPAT	19751111	5	Turns
11	US 3787865 A		USPAT	19740122	10	INTSC

U.S. Patent Nov. 11, 1975

3,919,710

FIG. 1

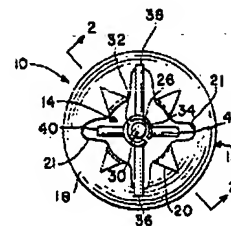


FIG. 2

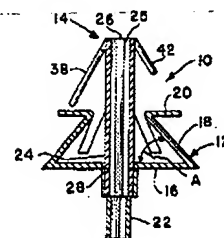
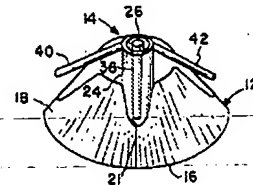


FIG. 3



US-PAT-NO: 6084551
DOCUMENT-IDENTIFIER: US 6084551 A
TITLE: Electromagnetic probe for the detection of e-field and h-field radiation

US Reference Patent Number - URPN (3):
3613922

U.S. Patent Jul. 4, 2000 Sheet 5 of 8 6,084,551

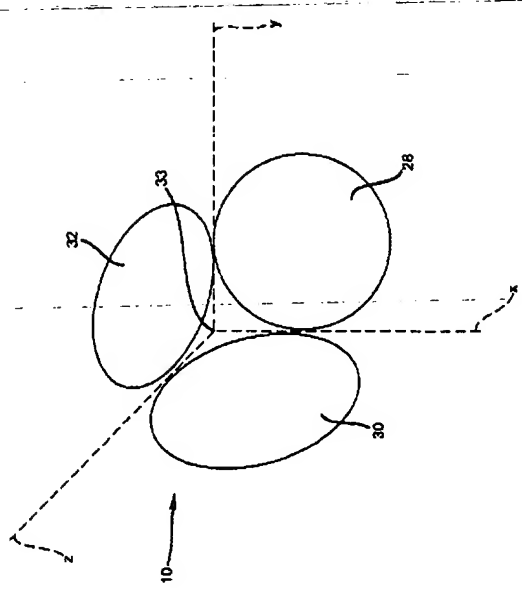
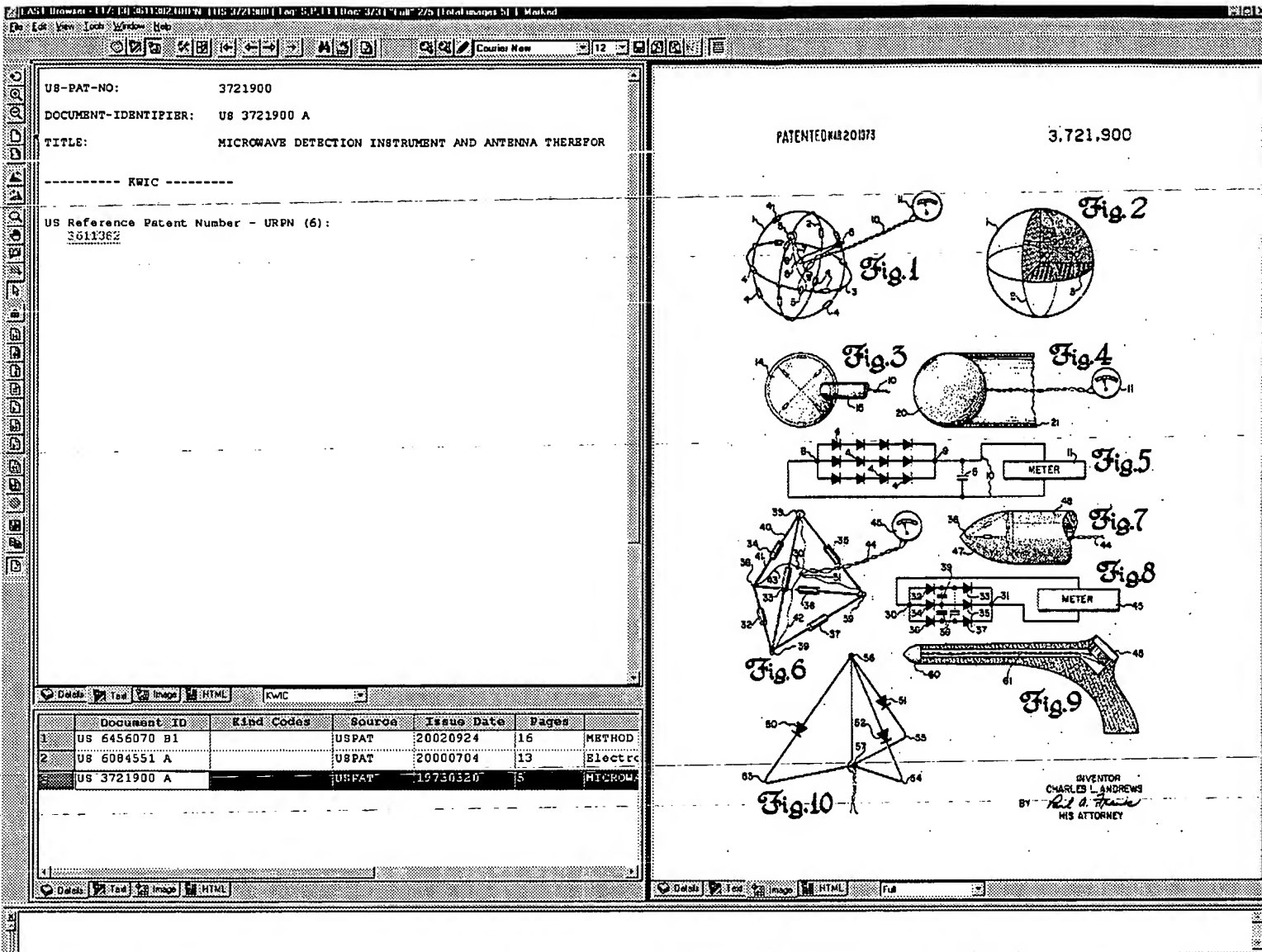


FIG. 6

	Document ID	Kind Codes	Source	Issue Date	Pages	
1	US-6456070-B1		USPAT	20020924	16	METHOD
2	US 6084551 A		USPAT	20000704	13	Electro
3	US 3721900-A		USPAT	19730320	5	MICROWA



US-PAT-NO: 5714888

DOCUMENT-IDENTIFIER: US 5714888 A
See image for Certificate of Correction

TITLE: Method and apparatus for testing electronic circuitry in a manufacturing environment

DATE-ISSUED: February 3, 1998

INVENTOR-INFORMATION:
NAME CITY STATE ZIP CODE
COUNTRY
Naujoks; Adolph C. Coral Springs FL N/A

ASSIGNEE INFORMATION:
NAME CITY STATE ZIP CODE
COUNTRY TYPE CODE
Motorola, Inc. Schaumburg IL N/A N/A
02

APPL-NO: 08/ 578406

DATE FILED: December 26, 1995

INT-CL: [06] G01R031/308

US-CL-ISSUED: 324/750, 324/501

US-CL-CURRENT: 324/750, 324/501

FIELD-OF-SEARCH: 324/750; 324/158.1; 324/639; 324/538; 324/501

REF-CITED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME
US-CL		
4876656	October 1989	Leicht et al.
3647491	N/A	N/A
5218294	June 1993	Soiferman
3247538	N/A	N/A
5424633	June 1995	Soiferman
3247538	N/A	N/A

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Document ID	Kind Codes	Source	Issue Date	Pages	Metho
202 US 5714888 A		USPAT	19980203	19	Metho
203 US 5696372 A		USPAT	19971209	10	High
204 US 5675259 A		USPAT	19971007	15	Metho
205 US 5670886 A		USPAT	19970923	15	Metho
206 US 5640092 A		USPAT	19970617	13	Elect
207 US 5619997 A		USPAT	19970415	8	Passi
208 US 5608328 A		USPAT	19970304	14	Metho
209 US 5596150 A		USPAT	19970121	13	Comp

Details Text Image HTML

United States Patent
Naujoks

US00571488A
Patent Number: 5,714,888
Date of Patent: Feb. 3, 1998

541 METHOD AND APPARATUS FOR TESTING ELECTRONIC CIRCUITRY IN A MANUFACTURING ENVIRONMENT

Primary Examiner—Brian P. Kautz
Attorney Agent or Firm—Andrew S. Puller

ABSTRACT

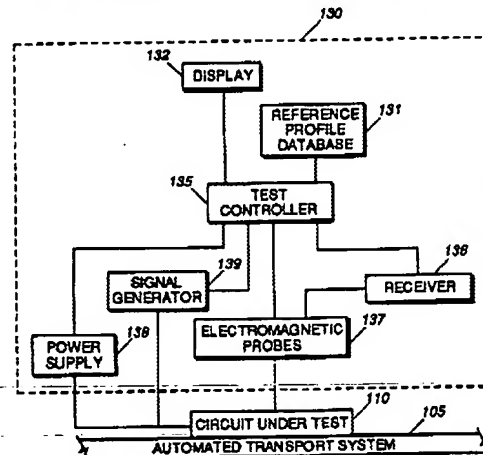
A manufacturing environment (100) includes test equipment (130) that tests circuitry (110) for functional operation. An electromagnetic probe (137) is operably adjacent to a substrate having electronic circuitry to be tested (310). The electromagnetic probe is activated to directly transmit a localized portion of the electronic circuitry with a wireless signal (330). Functional operation of the circuitry is determined by measuring the response of the electronic circuitry (330, 340). In one embodiment, an array of electromagnetic probes is operated to receive near-field electromagnetic emissions emanating from the circuitry. These emissions are measured and an electromagnetic profile generated for a portion of the circuitry (334). The electromagnetic profile is analyzed to determine functional operation of the circuitry (340).

References Cited

U.S. PATENT DOCUMENTS

4,376,896	10/1989	Lalick et al.	304,481
5,318,294	6/1993	Soiferman	324/538
5,424,633	6/1995	Soiferman	324/538
5,517,110	9/1996	Soiferman	324/538

18 Claims, 4 Drawing Sheets



100

Details Text Image HTML FULL

US-PAT-NO: 6035252

DOCUMENT-IDENTIFIER: U8 6035951 A

DOCUMENT-IDENTIFIER: US 6033991 A
 See image for Certificate of Correction

TITLE: System for tracking and/or guiding an underground boring tool

KWIC

US Patent No. - PN (1):

603.5353

U.S. Patent

Mar. 14, 2000

Sheet 8 of 15

6,035,951

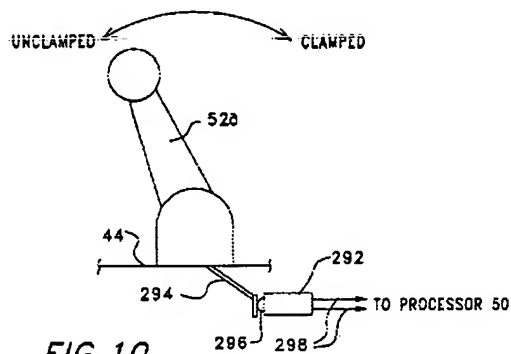


FIG. 10

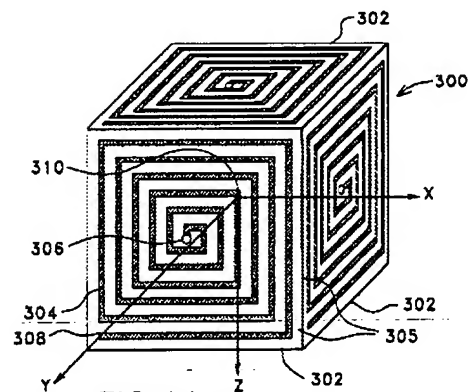


FIG. 11

Details Test Image HTML KWIC						
	U	I	Document ID	Issued Date	Pages	Title
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	US 6035951 A	20000714	38	System for tracking and/or guid
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5065093 A	19911112	15	Inductive proximity sensor for electrical conductivity
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 4495465 A	19850122	15	Method and apparatus for non-de magnetically permeable bodies u
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 2921309 A	19600112	3	TEXT NOT AVAILABLE
5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 2532551 A	19501205	5	TEXT NOT AVAILABLE
Details Test Image HTML						

AS: Browser - 12 (12) 4 and console (12) 4156566 [Log: 3.0.11] [Doc: 19/19] [Full: 0/0] [Total images: 0]

De [Alt View] [Tab Window Help]

PATENT-ASSIGNEE: MOTOR & TURBIN UNION MUN[MOTU]

PRIORITY-DATA: 197608-2654863 (December 3, 1976)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES
DE 2654863 B	April 20, 1978	N/A	000
N/A			
FR 2373044 A	August 4, 1978	N/A	000
N/A			
GB 1592990 A	July 15, 1981	N/A	000
N/A			
IT 1090803 B	June 26, 1985	N/A	000
N/A			
US 4150566 A	April 24, 1979	N/A	000
N/A			

INT-CL (IPC): F02C007/00, G01L003/10

ABSTRACTED-PUB-NO: DE 2654863B

BASIC-ABSTRACT:

The rotational moment measuring device, for an aircraft jet engine, uses four cylinders (17, 27, 28, 29), each coaxial to the longitudinal axis (L) of the device and at least partially fitting one inside the other. A transfer coupling (30, 31, 32) is positioned between each two cylinders (17, 27; 27, 28; 28, 29) so that the rotational moment is transmitted from the outermost cylinder (17), to the innermost cylinder (28) and back to the next cylinder (29) to this. A further coupling (33) is provided between the latter cylinder (29) and the second outermost cylinder (27).

Two parallel toothed discs (37, 38) of similar diameter are associated with the latter two cylinders, the relative rotation of which is proportional to the torsion of the innermost cylinder (28) due to the rotational moment and this relative rotation monitored by ~~electromagnetic devices~~ (39, 40).

TITLE-TERMS: ROTATING MOMENT MEASURE DEVICE AIRCRAFT JET ENGINE FOUR COAXIAL CYLINDER ELECTROMAGNET PROBE

DERWENT-CLASS: Q52 802

Details [Full] [HTML]

U	I	Document ID	Issue Date	Pages	Title
16	<input type="checkbox"/>	FR 2566525 A	19851227	9	Liq. level detector for anaerob annular float slidable on vert.
17	<input type="checkbox"/>	EP 51016 A	19820505	22	Electromagnetic probe for miner spiral conductors on cylinders
18	<input type="checkbox"/>	RU 909254 B	19820228	NA	Rotary piston engine power regu connected to engine shaft by re
21	<input checked="" type="checkbox"/>	DE 2654863 B	19780420	6	Rotational moment measuring dev engine and uses four coaxial cy

Details [Full] [HTML]

U.S. Patent Apr. 24, 1979 Sheet 2 of 2 4,150,566

FIG 2

FIG 3

SIMULTANEOUS DETERMINATION OF VARIOUS PARAMETERS OF AN ASSOCIATED CYLINDRICAL TARGET

PUBN-DATE: March 20, 1997

INVENTOR-INFORMATION:

NAME: LE, MINH-QUANG COUNTRY: FR
 PLACKO, DOMINIQUE COUNTRY: FR

ASSIGNEE-INFORMATION:

NAME: SAGEM COUNTRY: FR
 LE MINH QUANG COUNTRY: FR
 PLACKO DOMINIQUE COUNTRY: FR

APPL-NO: FR09601379

APPL-DATE: September 9, 1996

PRIORITY-DATA: FR09510605A (September 11, 1995)

INT-CL (IPC): G01R033/12, G01V003/10

EUR-CL (EPC): G01V003/10

ABSTRACT:

CHG DATE=19970502 STATUS=O>The cylindrical electromagnetic sensor comprising at least one circular cross-section cylindrical coil (2) associated to a core (1) with high magnetic permeability, is characterized in that the core (1) is a cylinder having a circular cross section, in that the coil (2) is fixed to a side face of the core and comprises a symmetry axis coaxial to the core face on which it is fixed, and in that the core (1) has a thickness (E) larger than the thickness (e) of the coil so that the magnetic field lines resulting from the excitation of the coil are substantially all of them included in the core.

Details Text Image HTML FULL

U	I	Document ID	Issue Date	Pages	Title
2		JP 61086662 A	19860502	4	APPARATUS FOR DETECTING CORONA
3		WO 2080770 A1	20021017	16	METHOD FOR MEASURING OF EDEMA
4		WO 2056418 A1	20020718	31	ELECTROMAGNETIC PROBE
5		WO 9710516 A1	19970520	25	CYLINDRICAL ELECTROMAGNETIC SEN
6		US 20020109497; 20020815		13	SIMULTANEOUS DETERMINATION OF V
		A			Electromagnetic probe/detector
					plane with constant profile imp

Details Text Image HTML FULL

INTERNATIONAL SEARCH REPORT

Date of Application No.
 PCT/FR 96/61379

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 6 G01R33/12 G01V3/10

B. FIELDS SEARCHED

Maximum search scope searched (specification upon retrieval by classification symbol)
 IPC 6 G01R G01V H03K

Documents searched other than patent literature in the areas that such documents are included in the field searched

Electronic data has been consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Character of document, with the author, where appropriate, of the relevant passage	Relevance to class No.
A	US 4 495 465 A (TOMATUOLD FRANK G ET AL) 22 January 1985 see column 3, line 63 - column 4, line 23; figure 3	1,2
A	US 5 065 093 A (MAUTA HENDRIKUS C ET AL) 12 November 1991 see abstract	
A	IBM TECHNICAL DISCLOSURE BULLETIN, vol. 2, no. 5, February 1969, NEW YORK, US, pages 92-93, XP002005889 LAMOREAUX: "Core Testing Device. February 1969." see the whole document	1,2

☐ Further documents are listed in the classification of item C. ☒ Patent family documents are listed as abstract

Special categories of cited documents:

"A" documents defining the general state of the art which is not considered to be of primary importance
 "B" documents defining the general state of the art which is not considered to be of primary importance
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 "P" documents defining the general state of the art which is not considered to be of primary importance
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 "R" documents defining the general state of the art which is not considered to be of primary importance
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 "Y" documents defining the general state of the art which is not considered to be of primary importance
 "Z" documents defining the general state of the art which is not considered to be of primary importance

"T" documents published after the international filing date of the application but before the date of publication of the application, which are of interest to the applicant for the reasons stated above
 "U" documents of particular relevance, the document is taken into account in the international search report
 "V" documents of particular relevance, the document is taken into account in the international search report
 "W" documents of particular relevance, the document is taken into account in the international search report
 "X" documents of particular relevance, the document is taken into account in the international search report
 "Y" documents of particular relevance, the document is taken into account in the international search report
 "Z" documents of particular relevance, the document is taken into account in the international search report

Date of the actual completion of the international search

28 October 1996

Date of mailing of the international search report

30. 10. 96

Name and mailing address of the ISA
 European Patent Office, P.O. Box 2955
 CH-8001 Zurich, Switzerland
 Tel. (+41) 01 22 51 11 11, Telex: 852 000 00
 Fax: (+41) 01 22 51 11 11

Authorized officer
 Swartjes, H

Form PCT/ISA/210 (second sheet) (July 1995)

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